

REAL-WORLD OUTCOMES OF SECONDARY HEMOPHAGOCYTIC LYMPHOHISTIOCYTOSIS IN B-CELL VS T/NK-CELL LYMPHOMAS: A PROPENSITY-MATCHED STUDY

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INTRODUCTION

Secondary hemophagocytic lymphohistiocytosis (HLH) is a life-threatening hyperinflammatory syndrome frequently associated with hematologic malignancies. Comparative real-world outcomes between B-cell and T/NK-cell lymphoma-associated HLH remain poorly characterized

AIM

To compare survival and critical illness outcomes among adults with secondary HLH associated with B-cell vs T/NK-cell lymphomas.

METHOD

- Retrospective, propensity score-matched cohort study using the TriNetX federated electronic health record network, comprising 110 healthcare organizations.
- Adults with HLH were included if HLH was diagnosed within one month before or after lymphoma diagnosis.
- Initial unmatched cohorts included 1,262 patients with B-cell lymphoma-associated HLH and 528 with T/NK-cell lymphoma-associated HLH. Cohorts were matched 1:1 for demographics and baseline comorbidities.
- Outcomes were assessed from one month through five years after HLH diagnosis.

RESULTS

The primary outcome was overall survival. Secondary outcomes include critical illness and organ dysfunction. T/NK-cell lymphoma-associated HLH demonstrated consistently poorer survival than B-cell lymphoma-associated HLH. Survival probabilities for the B-cell versus T/NK-cell cohorts were:
1 month: 65.81% vs 60.30%
3 months: 61.49% vs 56.92%
1 year: 45.02% vs 41.93%
3 years: 40.36% vs 36.27%
5 years: 53.8% vs 35.5%

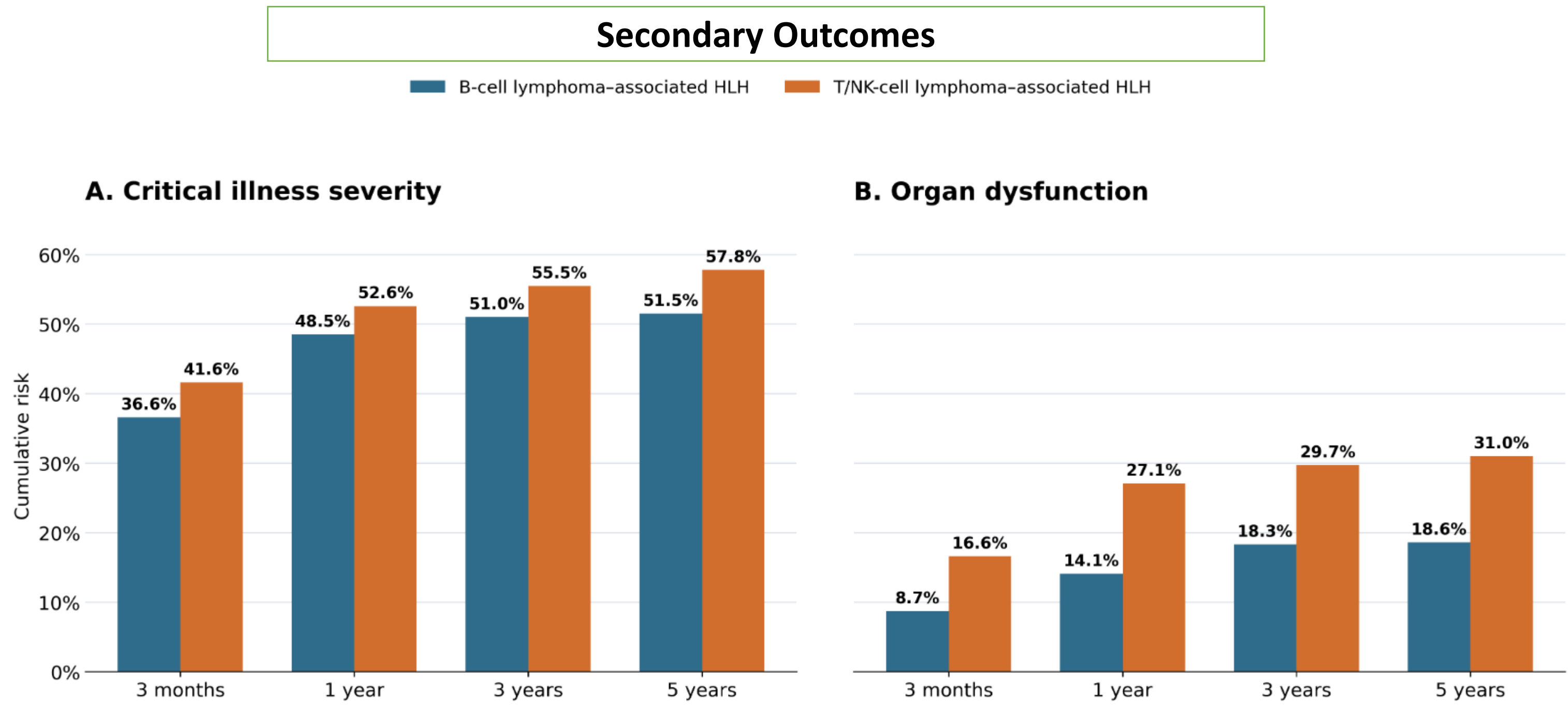
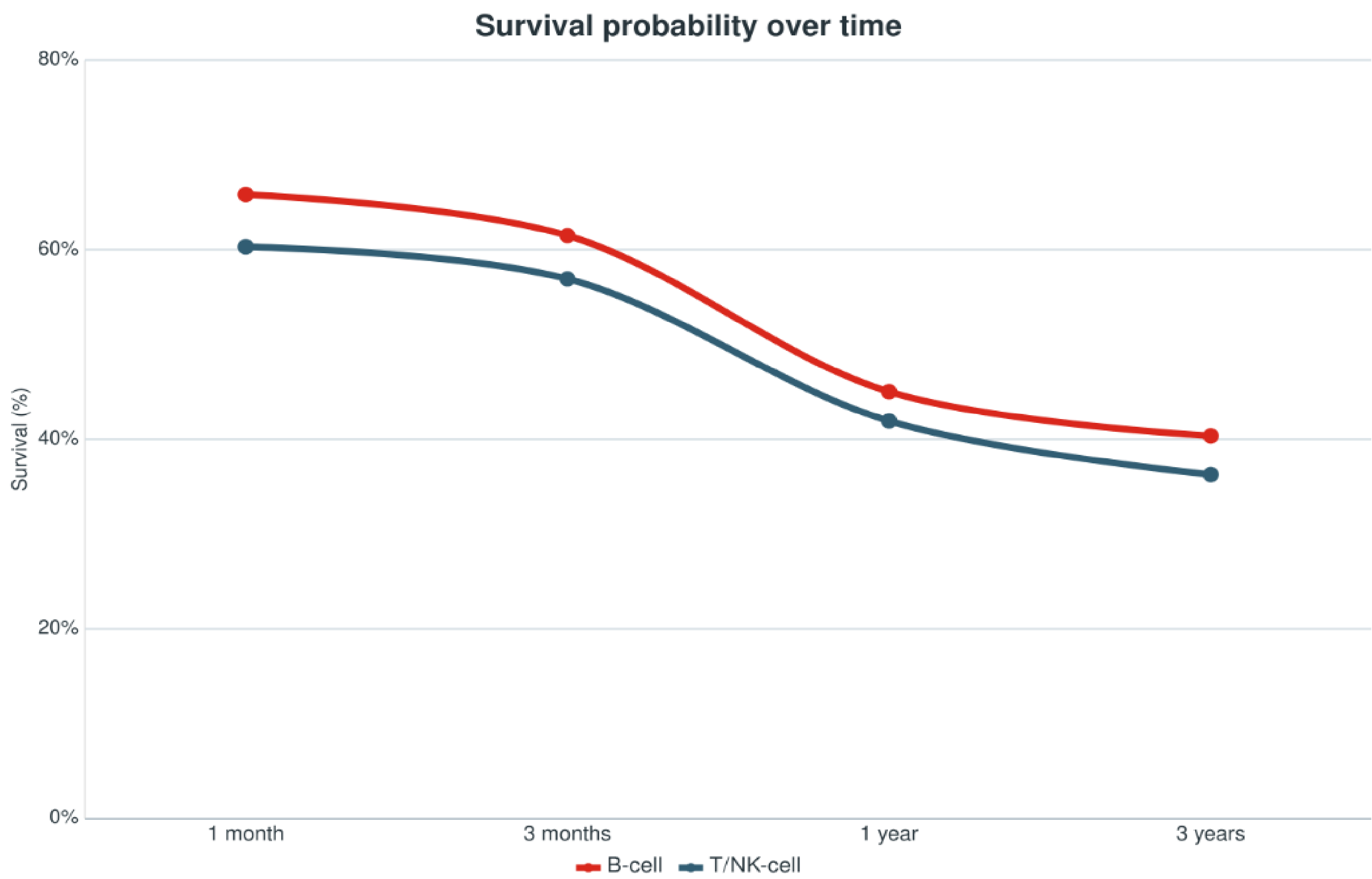


Figure 1: Overall Survival



CONCLUSIONS

T/NK-cell lymphoma-associated secondary HLH was associated with worse survival and greater critical illness burden compared with B-cell lymphoma-associated HLH. These findings highlight the aggressive inflammatory biology of T/NK-cell lymphoma-associated HLH and support the need for earlier recognition, rapid treatment initiation, and improved risk-stratification strategies in this high-risk population.

CONTACT INFORMATION

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